

POWER GRID CORPORATION OF INDIA LTD.

(A Govt. of India Enterprise)

Annexure - 6(a)

Category of proposal for which Cost-Benefit Analysis is applicable

Sl. No.	Nature of Proposals	Applicable/ Not applicable	Remarks
1	All Categories of proposals involving forest land up to 20 Ha. In plains and up to 5 Ha. In hills.	Not applicable	These proposals are to be considered on case to case basis and value judgement.
2	Proposals for defence installation purpose and oil prospecting (Prospecting only)	Not applicable	In view of National priority accorded to these sectors, the proposals would be critically assessed to help ascertain that the utmost minimum forest land above is diverted for non forest use.
3	Habitations, establishment of industrial units, tourist lodges/complex and other building construction	Not applicable	These activities being detrimental for protection and conservation of forest, as a matter of policy such proposals would be rarely entertained.
4	All other proposals involving forest land more than 20 ha. In plains and more than 5 Ha. In hills including roads, transmission lines, minor, medium and major irrigation projects, mining activity, railway lines, location specific installations like microwave stations, auto repair centres, TV towers, etc.	Applicable	These are cases where a cost benefit analysis is necessary to determine when diverting the forest land to non forest use is in the over all public interest.



(Y.N.M. RAO)

Asst. General Manager

Power Grid Corporation of India Ltd.
Construction Area Office, Kadapa. AP.

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Annexure - 6(b)

PARAMETERS FOR EVALUATION OF LOSS OF FORESTS.

Sl. NO.	PARAMETERS	ROADS, TRANSMISSION LINES & RAILWAY LINES
1	Loss of value of timber, fuel wood and minor forest produce on an annual basis, including loss of man hours per annum of people who devied livelihood and wages from the harvest of these commodities.	
2	Loss of animal husbandary productivity, including loss of fodder.	
3	Cost of human resettlement.	Nil - There is no human resettlement in this proposals. Hence no cost is involved.
4	Loss of public facilities and administrative infrastructure (roads, buildings, schools, dispensaries, electric lines, railways, etc.) on forest land: or which would require forest land if these facilities were diverted due to the project.	Nil - There is no loss of public facilities and administrative infrastructure (roads, buildings, schools, dispensaries, electric lines, railways, etc.) on forest land under these project proposals, hence no loss.
5	Environmental loss -(soil erosion, effect on hydrological cycle, wild life habitat, microclimate, upsetting of ecological balance)	
6	Suffering to oustees.	There are no oustees who are being evicted, hence no loss.



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Annexure – VI (C)

COST BENEFIT ANALYSIS

1. PROJECT COST : 350.00Cr. Approx.
2. BENEFITS FROM PROJECT
 - a) Capacity of line (Power Transfer Capacity) : 1360MW
(680 MW per circuit of 400KV Transmission Line)
 - b) Load Factor : 80%
 - c) Line Loss : 2.5%
 - d) Line Availability : 97.5%
 - e) Average cost of energy transfer per unit : Rs. 0.2 per KWH
 - f) KWH per year : $1360 \times 1000 \times 0.80 \times 24 \times 365 \times 0.975 =$
929,26,08,000 KWH/Year
 - g) Transmission Charges/ Cost of supply per year: 0.20×9292608000
= Rs. 185,85,21,600.00
 - h) Transmission Charges against power transfer in 50years : 9292.60 Cr
Net benefit from Transmission system in 50 years : 9292.60 Cr
3. COST BENEFIT RATIO (CB RATIO) : $350/9292.60 = 0.0376$

The benefit from these transmission lines is more than Rs. 185.85 Cr per year to the nation or Rs. 9292.60 Cr. in fifty years if flow of power is continued through this transmission system whereas the cost of project including the compensation against forest area involved, interest during construction and other misc. expenditure is Rs. 350 Cr which is very less in compared to profit from this transmission line project.

Place : Kadapa

Date: 16/12/15



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